SNOWMOBILE ACCIDENT ANALYSIS
PROVINCE OF MANITOBA

WINTER OF 1982-83

This report includes all snowmobile accidents reported in Manitoba during the winter of 1982-83. Reportable accidents are those involving fatalities, personal injuries, or property damage in excess of $100.00. The primary function of this information is to help, Instructors in the Manitoba Snowmobile Safety Training Program, identify the major causes of snowmobile accidents and to enable them to lend special emphasis to the appropriate countermeasures.

	1980-81	1981-82	1982-83	Percent Change from 1981-82
Number of Accidents	68	59	79	+ 33.9%
Number of Snowmobiles	78	68	93	+ 36.8%
Number of machines registered in Province* (As of end of July for year indicated)	32,128	35,853	21,767	- 39.3%
Fatal Accidents	5	2	6	+ 200.0%
Number of Fatalities	5	2	7	+ 250.0%
Injurious Accidents	42	43	59	+ 37.2%
Number of Personal Injuries (Not including fatalities)	51	45	79	+ 75.5%
Number of Accidents (Injuries not stated)	21	14	14	--
Property Damage	$60,987.	$33,571.	$50,327.	+ 49.9%

*Snowmobiles in Manitoba are registered for three year registration periods. The figures listed represent the aggregate for the portion of the three year registration to the year indicated. 1982-83 was year one of the 1982-85 registration period.

Prepared by:

Province of Manitoba
Department of Highways and Transportation
Motor Vehicle Branch, Safety Division
1075 Portage Avenue
Winnipeg, Manitoba
R3G 0S1

A. ACCIDENTS BY MONTH

	1980-81	% OF TOTAL ACCIDENTS	1981-82	% OF TOTAL ACCIDENTS	1982-83	% OF TOTAL ACCIDENTS	PERCENT CHANGE FROM 1981-82
October	1	1.5%	0	--	1	1.3%	+ 100.0%
November	5	7.4%	2	3.4%	4	5.1%	+ 100.0%
December	13	19.1%	12	20.3%	11	13.9%	- 8.3%
January	22	32.4%	15	25.4%	18	22.8%	+ 20.0%
February	17	25.0%	11	18.6%	29	36.7%	+ 163.6%
March	8	11.8%	17	28.8%	10	12.7%	- 41.2%
April	2	2.9%	2	3.4%	5	6.3%	+ 150.0%
May	0	--	0	--	1	1.3%	+ 100.0%

B. ACCIDENT LOCATIONS

	1980-81	% OF TOTAL ACCIDENTS	1981-82	% OF TOTAL ACCIDENTS	1982-83	% OF TOTAL ACCIDENTS	PERCENT CHANGE FROM 1981-82
Public Roadways	20	29.4%	18	30.5%	31	39.2%	+ 72.2%
Rivers, Lakes, and Creeks	15	22.0%	13	22.0%	19	24.1%	+ 46.2%
Ditches and Right-of-Ways	9	13.2%	5	8.5%	9	11.4%	+ 80.0%
Fields, Farm Yards, Private Property.	3	4.4%	6	10.2%	5	6.3%	- 16.7%
Marked and Groomed Trails	2	2.9%	2	3.4%	5	6.3%	+ 150.0%
Bush Trails and Winter Roads	2	2.9%	2	3.4%	3	3.8%	+ 50.0%
Lakeshore, Riverbanks, Floodway	2	2.9%	2	3.4%	3	3.8%	+ 50.0%
School Grounds, Sport Fields	2	2.9%	2	3.4%	2	2.5%	--
Parking Lots	3	4.4%	3	5.1%	1	1.3%	- 66.7%
Driveways	2	2.9%	1	1.7%	1	1.3%	--
Backlane, Alleys	0	--	1	1.7%	0	--	- 100.0%
*Unknown	8	11.8%	4	6.8%	0	--	- 100.0%

B. ACCIDENT LOCATIONS (Cont'd)

*Accident reports contained insufficient information to determine location.

C. ACCIDENT TYPES

	1980-81	% OF TOTAL ACCIDENTS	1981-82	% OF TOTAL ACCIDENTS	1982-83	% OF TOTAL ACCIDENTS	PERCENT CHANGE FROM 1981-82
Snowmobile/Fixed Object Collision . . .	19	27.9%	18	30.5%	26	32.9%	+ 44.4%
Snowmobile/Motor Vehicle Collision . .	15	22.1%	15	25.4%	17	21.5%	+ 13.3%
Single Snowmobile Accident	19	27.9%	16	27.1%	17	21.5%	+ 6.3%
Snowmobile/Snowmobile Collision	10	14.7%	7	11.9%	12	15.2%	+ 71.4%
Snowmobile/Person Collision	2	2.9%	1	1.7%	6	7.6%	+ 500.0%
Cutter Upset	0	--	0	--	1	1.3%	+ 100.0%
Cutter/Fixed Object Collision	0	--	1	1.7%	0	--	- 100.0%
Cutter/Person Collision	0	--	1	1.7%	0	--	- 100.0%
Snowmobile/Train Collision	1	1.5%	0	--	0	--	--
Unknown	2	2.9%	0	--	0	--	--

D. LIGHT CONDITIONS

	1980-81	% OF TOTAL ACCIDENTS	1981-82	% OF TOTAL ACCIDENTS	1982-83	% OF TOTAL ACCIDENTS	PERCENT CHANGE FROM 1981-82
Daylight	29	42.6%	37	62.7%	33	41.8%	- 10.8%
Darkness	34	50.0%	20	33.9%	41	51.9%	+ 105.0%
Dusk	3	4.4%	2	3.4%	3	3.8%	+ 50.0%
Unknown	2	2.9%	0	--	2	2.5%	+ 200.0%

E. AGE/SEX OF OPERATOR

	1980-81	% OF TOTAL OPERATORS	1981-82	% OF TOTAL OPERATORS	1982-83	% OF TOTAL OPERATORS	PERCENT CHANGE FROM 1981-82
Under 16 years of age	15	20.0%	6	9.2%	8	7M/1F 8.7%	+ 33.3%
16 - 20	22	29.3%	20	30.8%	20	19M/1F 21.7%	--
21 - 25	15	20.0%	10	15.4%	15	13M/2F 16.3%	+ 50.0%
26 - 30	9	12.0%	11	16.9%	22	21M/1F 23.9%	+ 100.0%
31 - 35	4	5.3%	3	4.6%	10	10M/0F 10.9%	+ 233.3%
Over 35	4	5.3%	11	16.9%	17	15M/2F 18.5%	+ 54.5%
Unknown	6	8.0%	4	6.2%	0	-- --	- 100.0%

* One of the 93 snowmobiles involved in an accident was considered driverless.

F. CONDITIONS OF OPERATORS

	1980-81	% OF TOTAL OPERATORS	1981-82	% OF TOTAL OPERATORS	1982-83	% OF TOTAL OPERATORS	PERCENT CHANGE FROM 1981-82
Normal	45	60.0%	43	66.2%	56	60.9%	+ 30.2%
Intoxicated	4	5.3%	5	7.7%	15	16.3%	+ 200.0%
Had Been Drinking	15	20.0%	10	15.4%	18	19.6%	+ 80.0%
Unknown	11	14.6%	7	10.8%	3	3.3%	- 57.1%

* One of the 93 snowmobiles involved in an accident was considered driverless.

G. REGISTRATION

	1980-81	% OF TOTAL MACHINES	1981-82	% OF TOTAL MACHINES	1982-83	% OF TOTAL MACHINES	PERCENT CHANGE FROM 1981-82
Snowmobiles Registered	51	65.4%	44	64.7%	53	57.0%	+ 20.5%

G. REGISTRATION (Cont'd)

	1980-81	% OF TOTAL MACHINES	1981-82	% OF TOTAL MACHINES	1982-83	% OF TOTAL MACHINES	PERCENT CHANGE FROM 1981-82
Snowmobiles Not Registered	13	16.7%	16	23.5%	36	38.7%	+ 125.0%
Snowmobiles Not Required to be Registered	11	14.1%	6	8.8%	4	4.3%	- 33.3%
Unknown	3	3.8%	2	2.9%	0	--	- 100.0%

H. FATALITIES AND PERSONAL INJURIES

	SLIGHT INJURY	SERIOUS INJURY (HOSPITALIZED)	FATALITY	TOTAL	% OF TOTAL INJURIES
Snowmobile Operators	21	32	6	59	68.6%
Snowmobile Passengers	6	10	1	17	19.8%
Cutter Passengers	0	1	0	1	1.2%
Other Persons (ie: Pedestrians) . .	6	3	0	9	10.5%

I. OWNERSHIP OF SNOWMOBILES

	1980-81	% OF TOTAL MACHINES	1981-82	% OF TOTAL MACHINES	1982-83	% OF TOTAL MACHINES
Operated by Owner	40	51.3%	32	47.1%	50	53.8%
Operated by Other Persons . . .	33	42.3%	30	44.1%	37	39.8%
No Operator	3	3.8%	3	4.4%	1	1.1%
Unknown	2	2.6%	3	4.4%	5	5.4%

J. **POSSIBLE INFRACTIONS NOTED ON ACCIDENT REPORTS**

(i) The Snowmobile Act (33)

18 - Operating an unregistered snowmobile.
6 - Operating a snowmobile on a public roadway.
5 - Operating a snowmobile carelessly and without reasonable consideration of other persons and property.
2 - Failure to comply with rules before crossing a roadway.
2 - Unlicensed person operating a snowmobile across a roadway.

(ii) The Criminal Code of Canada (18)

8 - Operating a snowmobile while ability is impaired.
5 - Operating a snowmobile while having a blood/alcohol level exceeding 80 mg. of alcohol in 100 ml. of blood.
3 - Refuse to give breath sample.
2 - Leaving the scene of an accident.

(iii) The Highway Traffic Act (8)

3 - Operating a motor vehicle on a roadway while license is suspended.
1 - Operating a motor vehicle on a roadway without a license.
1 - Imprudent driving.
1 - Driving carelessly.
1 - Failure to report an accident.
1 - Operating without a license.

(iv) The Liquor Control Act (1)

1 - Open liquor.

K. VEHICLE DEFECTS

The following machine defects were noted on the accident reports as contributing either directly or indirectly to the accident.

4 - Brake malfunctions;
2 - Throttle malfunctions;
2 - Inoperative headlights;
1 - Inoperative tailight; and
1 - The brake and throttle were reversed.

L. DESCRIPTION OF ACCIDENT TYPES

(1) Snowmobile/Fixed Object Collisions (26)

There were 26 accidents reporting collisions between snowmobiles and fixed objects resulting in 2 operator fatalities, 15 serious injuries to 10 operators and 5 passengers, and 8 slight injuries to 5 operators, 2 passengers, and 1 pedestrian. Nine of the accidents occurred during the hours of daylight, 15 occurred during darkness, and 1 during dusk. One accident failed to indicate the time of day or the light conditions. It was reported that 6 operators were drunk and that 3 more had been drinking at the time of their accidents.

6 - Accidents occurred when snowmobiles struck rocks. In two cases, the operators had been drinking prior to the accident, while in another case the operator was intoxicated at the time of the accident.

6 - Accidents occurred when snowmobiles struck trees. Two accidents resulted in operator fatalities. It was reported that both operators were intoxicated at the time of their accidents.

3 - Accidents occurred when snowmobiles collided with poles. It was reported that one operator was intoxicated at the time of the accident.

2 - Accident reports contained insufficient information to determine what had happened.

1 - Accident occurred when a snowmobile, operating in a ditch, struck a peg causing the snowmobile to flip. The peg was painted white and was not clearly visible.

1 - Accident occurred when a snowmobile struck a hydro pole. It was reported that the snowmobiles' throttle and brake controls had been reversed. The operator had been drinking prior to the accident.

1 - Accident occurred when a snowmobile, operating in a ditch, collided with a pipe extending from the ground.

L. DESCRIPTION OF ACCIDENT TYPES

(1) Snowmobile/Fixed Object Collisions (26)

1 - Accident occurred when a snowmobile passenger suddenly applied the accelerator and collided with the stairs of a building. Both operator and passenger were intoxicated at the time of the accident.

1 - Accident occurred when the operator lost control of his snowmobile and hit an ice ridge.

1 - Accident occurred when a snowmobile collided with a barricade on a roadway.

1 - Accident occurred when the operator lost control of his snowmobile after hitting several bumps and collided with the side of a bridge.

1 - Accident occurred when a snowmobile struck a guy wire.

1 - Accident occurred when a snowmobile struck a tree.

(2) Snowmobile/Motor Vehicle Collisions (17)

There were 17 collisions between snowmobiles and motor vehicles. Seven of the collisions occurred during the hours of daylight, 8 during the hours of darkness, and 1 during dusk. One accident report failed to indicate the time of day or light condition. These collisions resulted in 1 operator fatality, serious (hospitalized) personal injuries to 2 operators and 1 passenger, and slight personal injuries to 4 operators and 1 passenger. It was reported that 3 operators were intoxicated and 3 more had been drinking prior to their accidents.

12- Accidents occurred involving snowmobiles that were being illegally operated on roadways. Separate cases involved:

4 - Snowmobiles colliding with parked motor vehicles. It was reported that one snowmobile failed to have any functional headlight or brakes, and resulted in the operator being killed. Three operators were reported to have been drinking and one was intoxicated at the time of the accident;

3 - Snowmobiles colliding with motor vehicles at intersections. One snowmobile failed to stop at an intersection controlled by a stop sign;

3 - Snowmobiles colliding "head-on" with motor vehicles. One accident occurred at the crest of a hill. One operator was intoxicated at the time of the accident;

1 - Snowmobile struck a motor vehicle that was turning onto a roadway; and

1 - Snowmobile struck the rear of a motor vehicle.

L. DESCRIPTION OF ACCIDENT TYPES (Cont'd)

(2) Snowmobile/Motor Vehicle Collisions (17)

2 - Accidents occurred when snowmobiles attempting to cross roadways were struck by passing motor vehicles.

2 - Accidents occurred when snowmobiles struck parked motor vehicles. One accident involved a motor vehicle parked on a frozen river, while the second accident involved a snowmobile being operating in a parking lot. One operator was intoxicated at the time of the accident.

1 - Accident occurred when a motor vehicle struck a parked snowmobile.

(3) Single Snowmobile Accidents (17)

There were 17 single snowmobile accidents resulting in 3 fatalities to 2 snowmobile operators and 1 passenger. Seven serious (hospitalized) personal injuries to 7 seven snowmobile operators and 5 slight injuries to 4 snowmobile operators and 1 passenger were also reported. Seven of these accidents occurred during the hours of daylight, 9 occurred during darkness, and 1 during dusk. It was reported that 1 snowmobile operator was intoxicated and 6 more had been drinking prior to their accidents.

4 - Accidents occurred when operators lost control of their snowmobiles after hitting snowdrifts. It was reported that one operator was intoxicated and two had been drinking prior to the accident.

3 - Accidents occurred when operators lost control of their snowmobiles causing them to roll. One accident resulted in an operator fatality. It was reported that the operator had been drinking prior to the accident.

2 - Accidents occurred when operators lost control of their snowmobiles while negotiating turns.

2 - Accident reports contained insufficient information to determine what had happened. Both reports indicate that the operators had been drinking prior to their accidents.

1 - Accident occurred when the operator lost control of the snowmobile when he came into contact with glare ice.

1 - Accident occurred when the snowmobile, while being operated in a ditch, struck barbwire that had been laying loosely on the ground.

1 - Accident occurred when a snowmobile suddenly caught on fire.

1 - Accident occurred when a snowmobile, operating on a river, broke through the ice. Both operator and passenger drowned.

1 - Accident occurred when a tow rope broke and the crippled snowmobile struck a passenger, who had fallen from the towing snowmobile.

1 - Accident occurred when an operator, while repairing the headlamp of his snowmobile, inadvertently activated the throttle. The operator had been drinking prior to the accident.

L. DESCRIPTION OF ACCIDENT TYPES (Cont'd)

(4) Snowmobile/Snowmobile Collisions (12)

There were 12 accidents involving snowmobiles in collision with other snowmobiles. These accidents resulted in 17 serious (hospitalized) personal injuries to 13 operators and 4 passengers, and 9 slight injuries to 7 operators and 2 passengers. Seven accidents occurred during daylight, while five occurred during darkness. It was reported that three of the operators were intoxicated and three other operators had been drinking.

6 - Accidents occurred when two snowmobiles collided "head-on". It was reported that one operator was intoxicated, while one other had been drinking prior to the accident.

4 - Accidents occurred when two snowmobiles travelling in the same direction collided when one snowmobile suddenly turned into the path of the second snowmobile.

2 - Accidents occurred when snowmobiles drove into the rear of another snowmobile. One accident indicated that one of the struck snowmobiles did not have any rear lights. Two of the four operators were intoxicated, while the other two operators had been drinking prior to the accident.

(5) Snowmobile/Person Collisions (6)

There were 6 accidents involving collisions with pedestrians, resulting in 1 fatality. It was reported that there were 3 serious (hospitalized) personal injuries to 3 pedestrians, and 6 slight injuries to 1 operator and 5 pedestrians. Two accidents occurred during daylight, with 4 occurring during the hours of darkness. It was reported that 2 operators were intoxicated and that 3 more had been drinking at the time of their accidents.

2 - Accidents occurred when snowmobiles being operated on roadways struck pedestrians. It was reported that both operators were intoxicated at the time of the accident.

1 - Accident occurred when a snowmobile, crossing a roadway, struck a pedestrian. The operator had been drinking prior to the accident.

1 - Accident occurred when a snowmobile, operating on a lake, collided with three pedestrians.

1 - Accident occurred when a tire tube being towed behind a snowmobile struck a pedestrian.

1 - Accident occurred when an operator lost control of the snowmobile, fell off, and was struck by a second snowmobile. This accident resulted in one fatality. It was also reported that both operators had been drinking prior to the accident.

L. DESCRIPTION OF ACCIDENT TYPES (Cont'd)

(6) Cutter Upset (1)

This accident occurred when a sleigh being towed by a snowmobile suddenly overturned causing serious injuries to a passenger. The accident occurred during daylight hours.

M. FATALITIES

In the 1982-83 snowmobile season, there were six fatal accidents resulting in seven fatalities. Six of the deceased were snowmobile operators and one was a passenger.

- On November 18, 1982, a 46 year old Poplar River man and his 15 year old daughter drowned when the snowmobile he was operating broke through the ice of a river he was attempting to cross.

- On December 25, 1982, a 36 year old Cormorant man was killed when he lost control of his snowmobile and struck his head against a tree. It was reported that the deceased was intoxicated at the time of the accident.

- On December 26, 1982, a 37 year old Saskatchewan man was killed when the snowmobile he was operating left the roadway and struck a tree. It was reported that the deceased was driving excessively fast and was intoxicated at the time of the accident.

- On January 12, 1983, a 24 year old Norway House woman was killed when she lost control of the snowmobile she was operating, fell off, and was struck by a second snowmobile. It was reported that the deceased had been drinking prior to the accident.

- On February 14, 1983, a 39 year old Poplar River man was killed when the snowmobile he was operating, on the shoulder of a roadway, collided with the rear of a parked motor vehicle. It was reported that the snowmobile did not have functional brakes or headlight. The deceased had been drinking prior to the accident.

- On February 20, 1983, a 29 year old St. Jean Baptiste man was killed when he lost control of his snowmobile while operating on a roadway. He later died from injuries sustained in the accident. It was reported that the operator had been drinking prior to the accident.

N. COMMENTARY

The need for operator education and proper attitude development cannot be over emphasized. The following figures highlight the need for the education of our young operators:

- 30.4% of the reported snowmobile accidents involved operators 20 years of age and younger; and
- 46.8% of all the snowmobile offences were committed by operators 20 years of age and younger.

N. COMMENTARY (Cont'd)

Single Snowmobile Accidents and Snowmobile/Fixed Object Collisions account for nearly 55% of the reported accidents. These accidents were usually a direct result of the operators misjudging or simply not paying attention to the type of terrain they were operating on.

Alcohol also appears to be a contributing factor in a significant number of accidents. Operators in over 35% of the reported accidents had either been intoxicated or had been drinking. In the 1982-83 season, alcohol was reported to be a contributing factor in five of the six fatal accidents.

Vehicle defects were reported in less than 13% of the accidents. In most cases, the failure was not on the part of the snowmobile, but that of it's operator. It is important for the snowmobile operator to understand the capabilities and handling characteristics of their snowmobile and operate in such a manner appropriate to the conditions.

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POOR

QUALITY

ORIGINAL